

101.2 - Low Alloy Steels (chip form) [150 g units (unless otherwise noted)]

Technical Contact: john.sieber@nist.gov

PLEASE NOTE: The tables are presented to facilitate comparisons among a family of materials to help customers select the best SRM for their needs. For specific values and uncertainties, the certificate is the only official source.

SRM	30f	32e	33e	36b	72g	100b	106b	125b
Description	LA Steel, Cr-V (SAE 6150)	Nickel-Chromium Steel (SAE 3140)	LA Steel, Ni-Mo (SAE 4820)	Chromium-Molybdenum Steel	LA Steel (AISI 4130)	LA Steel, Manganese (SAE (T340)	LA Steel, Cr-Mo-Al (Nitralloy rG)	LA Steel, High Silicon
Unit Size	(150 g)	(150 g)	(150 g)	(150 g)	(150 g)	(150 g)	(150 g)	(150 g)

C	0.490	0.4086	0.186	0.1143	0.278	0.397	0.326	0.028
Mn	0.79	0.7983	0.525	0.4041	0.492	1.89	0.506	0.278
P	0.011	0.00888	0.005	0.0074	0.009	0.023	0.008	0.029
S		0.0210				0.029 (Grav)	0.016 (Grav)	
S (Comb)	0.009		0.009	0.01871	0.014	0.028	0.017	0.008
Si	0.283	0.2775	0.262	0.2580	0.223	0.210	0.274	2.89
Cu	0.074	0.1266	0.070	0.1792	0.011	0.064	0.117	0.071

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Unit Size	(150 g)	(150 g)	(150 g)	(150 g)	(150 g)	(150 g)	(150 g)	(150 g)

Ni	0.070	1.1938	3.36	0.205	0.016	0.030	0.217	0.038
Cr	0.945	0.6775	0.068	2.178	0.905	0.063	1.18	0.019
N	0.010	(0.009)			(0.008)	0.004		Ca 0.0051
V		0.00225		0.0043	0.003	0.003	0.003	
Mo		0.0228	0.224	0.9960	0.170	0.237	0.199	0.008
Sn		(0.011)						0.003

Values in parentheses are not certified and are given for information only.

*Values determined by isotope dilution mass spectrometric (IDMS) analysis.

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Al (total)	0.030	(0.041)	1.07	0.329
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SRM	129c	131g	139b	155	163	179	291	293
Description	LA Steel, High Sulfur (SAE 112)	Low Alloy Silicon Steel	LA Steel, Cr-Ni-Mo (AISI 8640)	LA Steel, Cr-W	LA Steel, 1.0 C	LA Steel, High Silicon	LA Steel, Cr-Mo (ASTM A 213)	LA Steel, Cr-Ni-Mo (AISI 8620)
Unit Size	(150 g)	(150 g)	(150 g)	(150 g)	(100 g)	(150 g)	(150 g)	(150 g)

C	0.125	0.0035	0.403	0.905	0.933	0.027	0.177	0.222
Mn	0.769		0.778	1.24	0.897	0.094	0.550	0.960
P	0.076		0.013	0.015	0.007	0.006	0.008	0.018
S		0.0004255		0.010 (Grav)				
S (Comb)	0.245		0.019	0.011	0.027	0.026	0.020	0.022
Si	0.020		0.242	0.322	0.488	3.19	0.230	0.300
Cu	0.013		0.097	0.083	0.087	0.056	0.047	0.032

SRM	129c	131g	139b	155	163	179	291	293
Description	LA Steel, High Sulfur (SAE 112)	Low Alloy Silicon Steel	LA Steel, Cr-Ni-Mo (AISI 8640)	LA Steel, Cr-W	LA Steel, 1.0 C	LA Steel, High Silicon	LA Steel, Cr-Mo (ASTM A 213)	LA Steel, Cr-Ni-Mo (AISI 8620)
Unit Size	(150 g)	(150 g)	(150 g)	(150 g)	(100 g)	(150 g)	(150 g)	(150 g)

Ni	0.251	0.510	0.100	0.081	0.050	0.065	0.480
Cr	0.014	0.488	0.485	0.982	0.022	1.33	0.510
N		0.007	W 0.517	0.007			
V	0.012	0.004	0.014		<0.01		0.004
Mo	0.002	0.182	0.039	0.029	0.014	0.538	0.204
Sn					0.004		
Al (total)					0.0028	0.002	0.039

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